WHAT IS CLAIMED IS:

1. A method of reservoir targeting, comprising:

filtering a plurality of values in a three-dimensional model to eliminate values which are below a threshold to create a filtered three-dimensional model;

developing a first matrix from the filtered three-dimensional model representing a two-dimensional model of the reservoir, wherein the first matrix includes a plurality of cell center locations, cell areas, and the plurality of values;

developing a second matrix from the first matrix using a distance-weighted sum of the plurality of values; and

selecting target locations from the second matrix based on the distance-weighted sum of the plurality of values.

2. The method of claim 1, wherein developing the first matrix further comprises windowing one or more cells from the filtered three-dimensional model to determine a center point location with a value of interest.

3. The method of claim 2, further comprising windowing the one or more cells using a window determined based on the number of layers in the filtered three-dimensional model of the reservoir.

4. The method of claim 1, wherein filtering includes using at least one user-defined filter.

5. The method of claim 1, wherein developing the second matrix further comprises deriving a cumulative value associated with each center location using the relationship: cumulative value = (CumWeightedValue/CuWeight) * CumWeightedArea, wherein

CumWeightedValue = $\sum$ cellvalue*weight,

CumWeightedArea = $\sum$ cellarea* weight, and

CumWeight = $\sum$ (SpacingRadius - DistanceFrom Cell)/SpacingRadius, where SpacingRadius is a user-defined value and DistanceFromCell is defined as one of the larger of an actual distance from a cell under consideration to an adjacent cell and half the diagonal cell width.

6. The method of claim 1, wherein selecting target locations includes determining whether there are existing targets for the reservoir, and if existing targets are identified, eliminating possible targets within a predetermined distance from the existing targets before selecting new targets.

7. The method of claim 6, wherein selecting target locations includes an iterative process of selecting the targets based on a first preferred value, eliminating other targets within a predetermine distance from an initial target, and selecting a next preferred value for a next target location.

8. The method of claim 1, wherein selecting target locations includes an iterative process of selecting a target based on a preferred value, eliminating other

targets within a predetermine distance from a initial target, and selecting a next preferred value for a next target location.

9. The method of claim 1, wherein selecting target locations further comprises selecting one of a certain percentage and a certain number of targets selected.

10. The method of claim 1, further comprising triangulating a three-dimensional model before filtering the plurality of values.

11. A computer-readable medium having computer-executable instructions for performing stages comprising:

filtering a plurality of values in a three-dimensional model to eliminate values which are below a threshold to create a filtered three-dimensional model;

developing a first matrix from the filtered three-dimensional model representing a two-dimensional model of the reservoir, wherein the first matrix includes a plurality of cell center locations, cell areas, and the plurality of values;

developing a second matrix from the first matrix using a distance-weighted sum of the plurality of values; and

selecting target locations from the second matrix based on the distance-weighted sum of the plurality of values.

12. The computer-readable medium of claim 11, wherein developing the first matrix further comprises windowing one or more cells from the filtered three-dimensional model to determine a center point location with a value of interest.

13. The computer-readable medium of claim 12, further comprising windowing the one or more cells using a window determined based on the number of layers in the filtered three-dimensional model of the reservoir.

14. The computer-readable medium of claim 11, wherein filtering includes using at least one user-defined filter.

15. The computer-readable medium of claim 11, wherein developing the second matrix further comprises deriving a cumulative value associated with each center location using the relationship: cumulative value = (CumWeightedValue/CuWeight) * CumWeightedArea, wherein

CumWeightedValue = $\sum$ cellvalue*weight,

CumWeightedArea = $\sum$ cellarea* weight, and

CumWeight = $\sum$ (SpacingRadius - DistanceFrom Cell)/SpacingRadius, where SpacingRadius is a user-defined value and DistanceFromCell is defined as one of the larger of an actual distance from a cell under consideration to an adjacent cell and half the diagonal cell width.

16. The computer-readable medium of claim 11, wherein selecting target locations includes determining whether there are existing targets for the reservoir,

and if existing targets are identified, eliminating possible targets within a predetermined distance from the existing targets before selecting new targets.

17. The computer-readable medium of claim 16, wherein selecting target locations includes an iterative process of selecting the targets based on a first preferred value, eliminating other targets within a predetermine distance from an initial target, and selecting a next preferred value for a next target location.

18. The computer-readable medium of claim 11, wherein selecting target locations includes an iterative process of selecting a target based on a preferred value, eliminating other targets within a predetermine distance from a initial target, and selecting a next preferred value for a next target location.

19. The computer-readable medium of claim 11, wherein selecting target locations further comprises selecting one of a certain percentage and a certain number of targets selected.

20. The computer-readable medium of claim 11, further comprising triangulating a three-dimensional model before filtering the plurality of values.

21. A computer system, comprising:

a user interface;

memory storage means;

a processor coupled to the user interface and the memory storage means, the processor operable to:

filter a plurality of values in a three-dimensional model to eliminate values which are below a threshold to create a filtered three-dimensional model;

develop a first matrix from the filtered three-dimensional model representing a two-dimensional model of the reservoir, wherein the first matrix includes a plurality of cell center locations, cell areas, and the plurality of values;

develop a second matrix from the first matrix using a distance-weighted sum of the plurality of values;

select target locations from the second matrix based on the distance-weighted sum of the plurality of values; and

display on the user interface the selected target locations.

22. The computer system of claim 21, wherein the processor develops the first matrix by windowing one or more cells from the filtered three-dimensional model to determine a center point location with a value of interest.

23. The computer system of claim 22, wherein the processor determines the windowing of the one or more cells based on the number of layers in the filtered three-dimensional model of the reservoir.

24. The computer system of claim 21, wherein the processor filters the plurality of values using at least one user-defined filter.

25. The computer system of claim 21, wherein the processor develops the second matrix by deriving a cumulative value associated with each center location using the relationship: cumulative value = (CumWeightedValue/CuWeight) * CumWeightedArea, wherein

CumWeightedValue = $\sum$ cellvalue*weight,

CumWeightedArea = $\sum$ cellarea* weight, and

CumWeight = $\sum$ (SpacingRadius - DistanceFrom Cell)/SpacingRadius, where SpacingRadius is a user-defined value and DistanceFromCell is defined as one of the larger of an actual distance from a cell under consideration to an adjacent cell and half the diagonal cell width.

26. The computer system of claim 21, wherein the processor selects target locations by determining whether there are existing targets for the reservoir, and if existing targets are identified, eliminating possible targets within a predetermined distance from the existing targets before selecting new targets.

27. The computer system of claim 26, wherein the processor selects target locations using an iterative process of selecting the targets based on a first preferred value, eliminating other targets within a predetermine distance from an initial target, and selecting a next preferred value for a next target location.

28. The computer system of claim 21, wherein the processor selects target locations using an iterative process of selecting a target based on a preferred value,

eliminating other targets within a predetermine distance from a initial target, and selecting a next preferred value for a next target location.

29. The computer system of claim 21, wherein the computing platform triangulates a three-dimensional model before filtering the plurality of values.